



US 20210254042A1

(19) **United States**(12) **Patent Application Publication****Wang et al.**(10) **Pub. No.: US 2021/0254042 A1**(43) **Pub. Date: Aug. 19, 2021**(54) **METHODS AND COMPOSITIONS FOR
SYNTHETIC RNA ENDONUCLEASES**(71) Applicant: **The University of North Carolina at
Chapel Hill, Chapel Hill, NC (US)**(72) Inventors: **Zefeng Wang, Chapel Hill, NC (US);
Rajarshi Choudhury, Chapel Hill, NC
(US)**(21) Appl. No.: **17/029,666**(22) Filed: **Sep. 23, 2020****Related U.S. Application Data**

(60) Division of application No. 16/021,892, filed on Jun. 28, 2018, now Pat. No. 10,815,476, which is a continuation of application No. 15/602,546, filed on May 23, 2017, now abandoned, which is a continuation of application No. 15/353,485, filed on Nov. 16, 2016, now abandoned, which is a division of application No. 13/805,240, filed on Jan. 31, 2013, now Pat. No. 9,499,805, filed as application No. PCT/US11/40933 on Jun. 17, 2011.

(60) Provisional application No. 61/356,340, filed on Jun. 18, 2010.

Publication Classification(51) **Int. Cl.*****C12N 15/10*** (2006.01)***C12N 9/22*** (2006.01)***C12Q 1/44*** (2006.01)***C12N 9/16*** (2006.01)***A61K 38/46*** (2006.01)***C12N 7/00*** (2006.01)***C12N 15/86*** (2006.01)(52) **U.S. Cl.**CPC ***C12N 15/102*** (2013.01); ***C12N 9/22***
(2013.01); ***C12Q 1/44*** (2013.01); ***C12N 9/16***
(2013.01); ***A61K 38/465*** (2013.01); ***C12N***
2750/14143 (2013.01); ***C12N 15/86*** (2013.01);
C07K 2319/85 (2013.01); ***G01N 2333/08***
(2013.01); ***G01N 2333/922*** (2013.01); ***Y02A***
50/30 (2018.01); ***C12N 7/00*** (2013.01)

(57)

ABSTRACT

The present invention provides sequence specific restriction enzymes for site-specific cleavage of RNA, as well as methods of their use.

Specification includes a Sequence Listing.